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UTILITY PATENT APPLICATION TRANSMITTAL

| d to a co | lection of information t | iness it displays a valid Olvib conduit fulfible | 31. | |
|---------------------|----------------------------|--|-----|--|
| Attorney Docket No. | | OPT-03-001 | | |
| First Inventor | | John G. Crandall | | |
| Title | Optimization Expert System | | | |
| | | EU20004700U0 | | |

| (Only for new nonprovisional applications under 37 CFR 1.53(b)) | | | Express Mail Label No. EU796031726US | | | | | |
|--|---|----------|--|---------------------------------------|----------|-----------------------|--------------|------------------|
| APPLICATION ELEMENTS | | | ADDF | RESS TO: | | stant Cor Patent A | | oner for Patents |
| See MPEP chapter 600 concerning utility patent application contents. | | | | | | hington, | • | |
| 1. Fee Transmittal Form (e.g., PTC (Submit an original and a duplicate for fee pro | D/SB/17) cessing) | | 7. CD-ROM or CD-R in duplicate, large table or O | | | | | |
| 2. Applicant claims small entity sta | tus. | | Computer Program (Appendix) 8. Nucleotide and/or Amino Acid Sequence Submission | | | | | |
| Specification [Total | Pages 61] | | (if applicable, all necessary) a Computer Readable Form (CRF) | | | | | |
| 3. (preferred arrangement set forth below) - Descriptive title of the invention | | | b. Specification Sequence Listing on: | | | | | |
| Cross Reference to Related A Statement Regarding Fed sp | • • | | i. CD-ROM or CD-R (2 copies); or | | | | | |
| Reference to sequence listing or a computer program listing | j, a table, | | ii. paper | | | | | |
| Background of the Invention | • | | с. | Statements | verifyir | ng identit | y of ab | ove copies |
| - Brief Summary of the Invention - Brief Description of the Draw | | | | COMPANY | | | | |
| Detailed DescriptionClaim(s) | | | 9 | _ | - | • | heet & | document(s)) |
| - Abstract of the Disclosure | - | _ | 10. 37 CFR 3.73(b) Statement Power of Attorney | | | | | |
| 4. Drawing(s) (35 U.S.C. 113) | Total Sheets 27 | J 1 | 11. English Translation Document (if applicable) | | | | | |
| 5. Oath or Declaration | Total Pages |]] | 12. Information Disclosure Statement (IDS)/PTO-1449 Citations | | | | | |
| a. Newly executed (original | or copy) | | 13. Preliminary Amendment | | | | | |
| b. Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed) | | | 14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized) | | | | | |
| i. DELETION OF INVENTOR(S) | | | 15. Certified Copy of Priority Document(s) (if foreign priority is claimed) | | | | | |
| Signed statement attached named in the prior applica | | | 16. Nonpublication Request under 35 U.S.C. 122 | | | | | |
| 1.63(d)(2) and 1.33(b). | | | (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. | | | | | |
| 6 Application Data Sheet. See 37 CFR 1.76 | | | 17. Other: | | | | | |
| 18. If a CONTINUING APPLICATION, che | | supply t | the requis | ite information | below a | and in a p | orelimii | nary amendment, |
| or in an Application Data Sheet under 37 (| Continuation-in-part (| (CIP) | of ı | prior application No | .: | 1 | | |
| Prior application information: Examine | r | | | | <u></u> | | | |
| For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. | | | | | | | | |
| The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. | | | | | | | | |
| 19. CORRESPONDENCE ADDRESS | | | | | | | | |
| Customer Number or Bar Code Label | (Insert Customer No. or Attach bar code label hel | | le label here) | here) or Correspondence address below | | | ddress below | |
| Name The Law | The Law Office of Richard V | | /. James | | | | | |
| 25 Churchill Road | | | | | | | | |
| Address | | | | | | 7 | | |
| City Churchill | | St | State Pennsylvania Zip Code 1 | | 15235 | | | |
| Country United St | ates Of America | Teleph | one (| 412)243-8 | 3708 | Fa | X | (412)243-4070 |
| Name (Print/Type) Richard W. James | | | Registration No. (Attorney/Agent) 43, | | 43,690 | | | |
| Signature | 2 W Came | | | | | Date | 09/1 | 8/2003 |

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Telephone 412-243-8708

9/18/2003

Date

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FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

Righard W. James

Name (Print/Type)

Signature

TOTAL AMOUNT OF PAYMENT

| (\$) | 375.00 |
|------|--------|
|------|--------|

| Complete if Kn wn | | |
|----------------------|------------------|--------------|
| Application Number | | |
| Filing Date | | |
| First Named Inventor | John G. Crandall | |
| Examin r Name | | · · · · · · |
| Art Unit | | |
| Attorney Docket No. | OPT-03-001 | |

| METHOD OF PAYMENT (check all that apply) | FEE CALCULATION (continued) | | | | |
|--|--|-------------|--|--|--|
| Check Credit card Money Other None | 3. ADDITIONAL FEES | | | | |
| Deposit Account: | Large Entity Small Entity | | | | |
| Deposit Account 502642 | Fee Fee Fee Fee Description | Fee Paid | | | |
| Number | 1051 130 2051 65 Surcharge - late filing fee or oath | | | | |
| Deposit Account Name Richard W. James | 1052 50 2052 25 Surcharge - late provisional filing fee or cover sheet | | | | |
| The Commissioner is authorized to: (check all that apply) | 1053 130 1053 130 Non-English specification | | | | |
| Charge fee(s) indicated below Credit any overpayments | 1812 2,520 1812 2,520 For filing a request for ex parte reexamination | n | | | |
| Charge any additional fee(s) during the pendency of this application | 4004 000t 4004 000t Barring william at OID will be | | | | |
| Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account. | 1805 1,840* 1805 1,840* Requesting publication of SIR after Examiner action | | | | |
| FEE CALCULATION | 1251 110 2251 55 Extension for reply within first month | | | | |
| 1. BASIC FILING FEE | 1252 410 2252 205 Extension for reply within second month | | | | |
| Large Entity Small Entity | 1253 930 2253 465 Extension for reply within third month | | | | |
| Fee Fee Fee Fee Description Fee Paid Code (\$) | | | | | |
| 1001 750 2001 275 Hilling Sing Soc | 1255 1,970 2255 985 Extension for reply within fifth month | | | | |
| 1001 730 2001 375 Outily filling fee 375.00 | 1401 320 2401 160 Notice of Appeal | | | | |
| 1003 520 2003 260 Plant filing fee | 1402 320 2402 160 Filing a brief in support of an appeal | | | | |
| 1004 750 2004 375 Reissue filing fee | 1403 280 2403 140 Request for oral hearing | <u> </u> | | | |
| 1005 160 2005 80 Provisional filing fee | 1451 1,510 1451 1,510 Petition to institute a public use proceeding | | | | |
| SUBTOTAL (1) (\$) 375.00 | 1452 110 2452 55 Petition to revive - unavoidable | | | | |
| | 1453 1,300 2453 650 Petition to revive - unintentional | | | | |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE | 1501 1,300 2501 650 Utility issue fee (or reissue) | | | | |
| Extra Claims below Fee Paid | d 1502 470 2502 235 Design issue fee | | | | |
| Independent 6 | 1503 630 2503 315 Plant issue fee | | | | |
| Claims 3 - 3** = X = X Multiple Dependent | 1460 130 1460 130 Petitions to the Commissioner | | | | |
| | 1807 50 1807 50 Processing fee under 37 CFR 1.17(q) | | | | |
| Large Entity Small Entity Fee Fee Fee Fee Description | 1806 180 1806 180 Submission of Information Disclosure Stmt | | | | |
| Code (\$) | 8021 40 8021 40 Recording each patent assignment per property (times number of properties) | | | | |
| 1202 18 2202 9 Claims in excess of 20 1201 84 2201 42 Independent claims in excess of 3 | 1809 750 2809 375 Filing a submission after final rejection | | | | |
| 1201 84 2201 42 Independent claims in excess of 3 1203 280 2203 140 Multiple dependent claim, if not paid | (37 CFR 1.129(a)) 1810 750 2810 375 For each additional invention to be | | | | |
| 1204 84 2204 42 ** Reissue independent claims | examined (37 CFR 1.129(b)) | | | | |
| over original patent | 1801 750 2801 375 Request for Continued Examination (RCE) | , | | | |
| 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent | 1802 900 1802 900 Request for expedited examination of a design application | | | | |
| Other fee (crossify) | | | | | |
| SUBTOTAL (2) (\$) **Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) (\$) (\$) *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) | | | | | |
| | | | | | |
| Name (Print/Tyne) Righard W. James | (Complete (if applicable) Registration No. 42 500 Tolonboro 442 242 9704 | | | | |

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ma

(Attorney/Agent)

43.690

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

John G. Crandall et al

OPTIMIZATION EXPERT SYSTEM

Serial No.: Not Yet Assigned

Filed: Herewith

September 18, 2003

New Application For Utility Patent

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Please accept the enclosed papers comprising a new utility patent application and associated documents. We ask that you indicate the application serial number and filing date on the enclosed post card and return the post card to us.

The present application claims priority to U.S. provisional patent application number 60/412,900, filed September 23, 2002, which is currently pending and U.S. provisional patent application number 60/450,815, filed March 1, 2003, which is currently pending.

Respectfully submitted,

Richard W. James

Registration No. 43,690

25 Churchill Road Pittsburgh, PA 15235 (412) 243-8708 rvjames@concentric.net

UTILITY APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

John G. Crandall et al.

In re application of:

| Serial No.: | Not Yet Assigned | | |
|---|--|--|--|
| Filed: | Concurrently Herewith | | |
| For: | Optimization Expert Systems | | |
| | | | |
| MAIL STOP PATENT | APPLICATION | | |
| Commissioner for Patents | | | |
| P.O. Box 1450 | | | |
| Alexandria, VA 22313 | -1450 | | |
| | Express Mail Certificate | | |
| | Express William Continued | | |
| "Express Mail" label nu | mber:EU796031726US | | |
| Date of Deposit: | September 18, 2003 | | |
| | | | |
| I hereby state the follow | ring papers are attached hereto: | | |
| Cover Sheet (1 page), Utility Patent Application Transmittal Sheet (1 page), Fee Transmittal Form (1 page and duplicate copy), U.S. Utility Application entitled "Optimization Expert System," comprising a cover sheet (1 page), a specification (58 pages), claims (2 pages), abstract (1 page), and drawings (27 pages). | | | |
| Which are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above and is addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. | | | |
| | Vicki L. Bologna Typed or Printed Name of Person Mailing Paper | | |
| | Signature of Person Mailing Paper | | |